



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,621	06/14/2001	Mark S. Schladenhauffen	ALBR:0092 (01AB054)	8219

7590 03/12/2004

Alexandar M. Gerasimow
Allen-Bradley Company, LLC
Patent Dept./704P, Floor 8 T-29
1201 South Second Street
Milwaukee, WI 53204-2496

EXAMINER

MOONEY, MICHAEL P

ART UNIT	PAPER NUMBER
----------	--------------

2877

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,621

Applicant(s)

SCHLADENHAUFFEN ET AL.

Examiner

Michael P. Mooney

Art Unit

2877

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,11-19,22,24,27,32,33,37,40 and 42-50 is/are rejected.
- 7) ☒ Claim(s) 3,6,9,10,20,21,23,25,26,28-31,34-36,38,39 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-5, 7, 11-13, 14-15, 17-19, 22, 24, 27, 32-33, 37 are rejected under 35 U.S.C. 102b as being anticipated by Parkyn, Jr., et al. (5806955).

Parkyn, Jr., et al. teaches an electronic device, including: a protective housing; a light source disposed within the protective housing; and a cover secured to the protective housing to form a protective enclosure for the electronic device and to form a light guide for guiding a first portion of light from the light source to a first surface portion (See, e.g., fig. 23 # 785) of the cover, a second surface portion (See, e.g., fig. 23 #'s 786, 787) of the cover being adapted to totally internally reflect the first portion of the light to the first surface portion. (e.g., figs. 22-23).

Thus claim 1 is met.

By the above reasons and references each and every element of claims 2, 5, 11, 13-15 are met. (See, e.g., figs. 22-23).

Parkyn, Jr., et al. teaches wherein each of the first surface portions extends a different distance from the third surface portion. For example, in figure 22, the first surface portion can be either side of part # 770 which can be understood as the third surface portion. (e.g., figs. 22 and/or 23). Thus claim 4 is met.

Parkyn, Jr., et al. teaches wherein the cover comprises a molded polymeric material. (col. 4 lines 34-36; col. 8 lines 20-23). Thus claim 7 is met.

Parkyn, Jr., et al. teaches wherein the first surface portion comprises a plurality of surfaces angled with respect to a direction of propagation of light through the cover, wherein light is refracted through the first surface portion at a plurality of angles with respect to the direction of propagation of light through the cover. (e.g., figs. 22 and/or 23). Thus claim 12 is met.

Parkyn, Jr., et al. teaches wherein the light source provides light in a plurality of colors. (e.g., figs. 22-23; col. 2 lines 24-28). Thus claim 17 is met.

Parkyn, Jr., et al. teaches wherein the cover is adapted to totally internally reflect light from the light source in a plurality of colors. (e.g., figs. 22-23; col. 2 lines 24-28). Thus claim 18 is met.

Parkyn, Jr., et al. teaches a protective cover for an enclosure, including: a first surface region of the cover, the first surface region (See, e.g., fig. 22 the outside surface to the left of part # 770) being oriented on a first side of the enclosure; a second surface region of the cover (See, e.g., fig. 22 the outside surface to the right of part # 770), the second surface region being oriented on a second side of the enclosure; and a first portion (see the entrance face or faces and TIR face or faces) of the cover, the first portion being adapted to receive light from a light source and totally internally reflect the light to the first surface region and the second surface region. (e.g., figs. 22-23).

Thus claim 19 is met.

Calling part # 770 of fig. 22 the "third surface region", Parkyn, Jr., et al. teaches wherein the first portion (see the entrance face or faces and TIR face or faces) comprises an angled member extending from a third surface region of the cover. Thus claim 22 is met.

By the above reasons and references each and every element of claims 24, 32 are met. (See, e.g., figs. 22-23).

Parkyn, Jr., et al. teaches wherein the first surface region comprises a smooth strip portion of the first surface region. Thus claim 27 is met.

Parkyn, Jr., et al. teaches a cover for an electronic device, including: a first portion adapted to cooperate with a protective housing to form a protective enclosure for the electronic device, the first portion having first and second exterior surface portions oriented at an angle to each other (e.g., in fig. 22 the 1st exterior surface portion is on the outside surface to the left of part #770 and the 2nd exterior surface portion is on the outside surface to the right of part #770); and a second portion (e.g., in fig. 22 where the saw-tooth shaped interior is located) adapted to extend from the first portion to a position adjacent to a light source within the enclosure, wherein light from the light source is internally reflected through the second portion to the first and second exterior surfaces, further wherein the light from the light source is refracted at the first and second exterior surfaces. (fig. 22).

Thus claim 33 is met.

By the above reasons and references each and every element of claim 37 is met.
(See, e.g., figs. 22-23).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8, 16, 40, 42-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkyn, Jr., et al. (5806955).

Parkyn, Jr., et al. teaches an electronic device, including: a protective housing; a light source disposed within the protective housing; and a cover secured to the protective housing to form a protective enclosure for the electronic device and to form a light guide for guiding a first portion of light from the light source to a first surface portion (See, e.g., fig. 23 # 785) of the cover, a second surface portion (See, e.g., fig. 23 #'s

Art Unit: 2877

786, 787) of the cover being adapted to totally internally reflect the first portion of the light to the first surface portion. (e.g., figs. 22-23).

Parkyn, Jr., et al. teaches wherein the cover comprises a molded polymeric material. (col. 4 lines 34-36; col. 8 lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select Trogamid RTM as the polymeric material because it is notoriously well known (NWK) to select polyamide blends, such as Trogamid RTM, in such applications for the purpose of utilizing their moldability properties and high transparency. It is further noted that it is NWK to take into account the refractive index of the selected polymeric material when using it in the design of an optical component/system.

Thus claim 8 is rejected.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the cover to comprise a material having an index of refraction of approximately 1.566 at a wavelength of 589.3 nm because it is NWK Trogamid RTM to have a refractive index of 1.566 at a wavelength of 589.3 nm.

Thus claim 16 is rejected.

By the above reasons and references each and every element of method claims , 40, 42-46 are rejected. (See, e.g., figs. 22-23).

The method as recited in claim 44, wherein molding comprises polishing portions of a mold used in molding the cover, the portion of the mold corresponding to surfaces

Art Unit: 2877

of the cover used to totally internally reflect light from the light source is rendered as obvious by the above reasons/references and the fact that it is notoriously well known (NWK) for molding to comprise polishing the regions corresponding to surfaces used to totally internally reflect. Thus claim 47 is rejected. Similarly, claims 48-50 are rejected as NWK methods of manufacturing such devices.

If Applicant disagrees with this obviousness holding with respect to the above method claims, then Applicant should submit evidence showing this obviousness holding is errant. Examiner will then consider restricting.

Allowable Subject Matter

Claims 3, 6, 9, 10, 20, 21, 23, 25-26, 28-31, 34-36, 38-39, 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

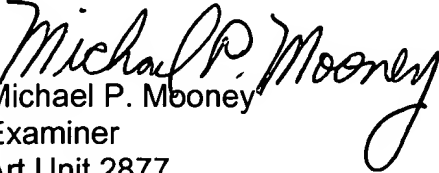
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2877

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-

1562.


Michael P. Mooney
Examiner
Art Unit 2877


Frank G. Font
Supervisory Patent Examiner
Art Unit 2877

FGF/mpm
3/3/04